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### Coping with climate change

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Propositions belonging to the thesis

# Coping with climate change

Energetic costs of avian timing of reproduction

by

Luc te Marvelde

1. The details of food availability in the period before egg laying, although acknowledged as important in literature, have been neglected by research, hampering our understanding why great tits are not laying earlier despite the advancement of the date of peak nestlings' food abundance.
2. In order to assess whether forest birds like great tits will be able to cope with future climate change, we have to understand whether the current phenological mismatch between nestlings' food demand and caterpillar availability is caused by birds not being sensitive enough to cues like temperature (*'cue hypothesis'*) or by a lack of food in the period before egg laying (*'constraint hypothesis'*).
3. We do not understand enough about the proximate mechanisms of timing of breeding to be able to experimentally advance laying dates in wild birds.
4. It is the spatial and temporal variation in global warming and not the warming per se which causes phenological mismatches within food chains.
5. Climate change is a threat to species existence and yet it is a perfect tool for biologists studying adaptation and evolution in a changing environment.
6. Door de verschuiving van het broedseizoen van vele bosvogels onder invloed van klimaatsverandering, kan het spreekwoord 'In mei leggen alle vogels een ei' kan beter vervangen worden door 'In april gaan alle vogels van bil' of zelfs 'de koolmees paart al in maart.'
7. For poker players who make use of previous information and information during the current hand; poker is a game of skill, not a game of luck.